ICF International / Laboratory Data Consultants
Environmental Services Assistance Team, Region 9
1337 South 46th Street, Building 201, Richmond, CA 94804-4698
Phone: (510) 412-2300 Fax: (510) 412-2304

MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM) RF
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105074 Amendment 3

DATE: August 23, 2007

SUBJECT: Review of Analytical Data, Tier 2

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	None
SDG Nos.:	IQB2427, IQC0445, IQC0602, IQC0945, IQC1079, and IQC1301
Laboratory:	TestAmerica Analytical Testing Corp.
Analysis:	Hexavalent Chromium
Samples:	15 Hydropunch Water Samples (see Case Summary)
Collection Dates:	February 22, March 5, 6, 8, 9, and 12, 2007
Reviewer:	Stan Kott, ESAT/Laboratory Data Consultants

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

SAMPLING ISSUES: [X] Yes [ ] No

Data Validation Report

Case No.: None
SDG Nos.: IQB2427 – IQC1301
Site: Omega Chem OU2
Laboratory: TestAmerica Analytical Testing Corp.
Reviewer: Stan Kott, ESAT/LDC
Date: August 23, 2007

I. CASE SUMMARY

Sample Information

SDG IQB2427 Samples:	OC2-HPW8A-W-0-365
SDG IQC0445 Samples:	OC2-HPW3A-W-0-379 and OC2-HPW3B-W-0-380
SDG IQC0602 Samples:	OC2-HPW4A-W-0-382 and OC2-HPW4B-W-0-383
SDG IQC0945 Samples:	OC2-HPW6B-W-0-387 and OC2-HPW5A-W-0-388
SDG IQC1079 Samples:	OC2-HPW5B-W-0-389, OC2-HPW5B-W-1-390, OC2-HPW7B-W-0-391, and OC2-HPW8B-W-0-392
SDG IQC1301 Samples:	OC2-HPW1A-W-0-394, OC2-HPW1B-W-1-395, OC2-HPW2A-W-0-396, and OC2-HPW2B-W-0-397
Concentration and Matrix:	Low Concentration Water
Analysis:	Hexavalent Chromium
SOW:	EPA Method 218.6
Collection Date:	February 22, March 5, 6, 8, 9, and 12, 2007
Sample Receipt Date:	February 22, March 5, 6, 8, 9, and 12, 2007
Preparation Date:	February 22, March 5, 6, 8, 9, and 12, 2007
Analysis Date:	February 22, March 5, 6, 7, 8, 9, and 12, 2007

Field QC

Field Blanks (FB):	Not Provided
Equipment Blanks (EB):	Not Provided
Background Samples (BG):	Not Provided
Field Duplicates (D1):	OC2-HPW5B-W-0-389 and OC2-HPW5B-W-1-390

Laboratory QC

Method Blanks:	7B22111-BLK1, 7C05127-BLK1, 7C06150-BLK1, 7C08101-BLK1, 7C09128-BLK1, and 7C12096-BLK1
Associated Samples:	Samples listed above
Matrix Spike (MS):	IQB2429-01MS2, IQC0444-03MS1, IQC0600-01MS1, OC2-HPW6B-W-0-387MS1, OC2-HPW8B-W-0-392MS1, and OC2-HPW1A-W-0-394MS1
Matrix Spike Duplicate (MSD):	IQB2429-01MSD2, IQC0444-03MSD1, IQC0600-01MSD1, OC2-HPW6B-W-0-387MSD1, OC2-HPW8B-W-0-392MSD1, and OC2-HPW1A-W-0-394MSD1

Analysis: Hexavalent Chromium

Analyte	Sample Preparation Date	Analysis Date
Hexavalent Chromium	February 22, March 5, 6, 8, 9, and 12, 2007	February 22, March 5, 6, 7, 8, 9, and 12, 2007

Sampling Issues

The Chain of Custody (COC) record forms for all SDGs did not specify a sample to be used for laboratory quality control (QC). As a result, the laboratory selected a sample for QC analysis. The effect on data quality is not known.

Additional Comments

As directed by the TOM, a Tier 2 validation (i.e., review all QC results and calibrations, minus calculation check) was performed. A Table 1A is not requested.

For the calibration curve established on March 12, 2007, the calculated percent difference (%D) for calibration standards 0.00030 mg/L and 0.001 mg/L are +68 %D and -12 %D, respectively, and exceed the 10% limit. The 10% limit was derived from the ±10% limit used in Method 218.6 to determine the linear dynamic range upper limit. The high and low %D indicates that the calibration may not be linear at the low end of the curve. Since the analytical method does not require analysis of a reporting limit (RL) standard to confirm linearity of the calibration curve at the 0.00030 mg/L RL, results greater than 0.0003 mg/L may have a high bias. Affected sample is OC2-HPW2B-W-0-397 (SDG IQC1301).

Definitions of data qualifiers are listed in Table 1B.

This report was prepared in accordance with the following documents:

- Region 9 Standard Operating Procedure 906, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Inorganic Data Packages*; and
- *USEPA Method 218.6, Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography*, Revision 3.3, May 1994.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Data Completeness	Yes	
2.	Sample Preservation and Holding Times	Yes	
3.	Calibration	Yes	
	a. Initial		
	b. Initial and Continuing Calibration Verification		
4.	Blanks	Yes	
5.	Laboratory Control Sample (LCS)	Yes	
6.	Duplicate Sample Analysis	Yes	
7.	Matrix Spike Sample Analysis	Yes	
8.	Field Duplicate Sample Analysis	Yes	
9.	Sample Quantitation	Yes	
10.	Overall Assessment	Yes	

N/A = Not Applicable

III. OVERALL ASSESSMENT OF DATA

All of the method requirements specified in the EPA Method 218.6 have been met. Reported results for hexavalent chromium in all of the samples were appropriately and correctly calculated.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004.

U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.